



PRELIMINARY DETERMINATION
ON PERMIT APPLICATION

Date of Mailing: July 31, 2008

Name of Applicant: Helena Sand & Gravel, Inc.

Source: Portable Wash Plant

Proposed Action: The Department of Environmental Quality (Department) proposes to issue a permit, with conditions, to the above-named applicant. The application was assigned Permit Application Number 4244-00.

Proposed Conditions: See attached.

Public Comment: Any member of the public desiring to comment must submit such comments in writing to the Air Resources Management Bureau (Bureau) of the Department at the above address. Comments may address the Department's analysis and determination, or the information submitted in the application. In order to be considered, comments on this Preliminary Determination are due by September 2, 2008. Copies of the application and the Department's analysis may be inspected at the Bureau's office in Helena. For more information, you may contact the Department.

Departmental Action: The Department intends to make a decision on the application after expiration of the Public Comment period described above. A copy of the decision may be obtained at the above address. The permit shall become final on the date stated in the Department's Decision on this permit, unless an appeal is filed with the Board of Environmental Review (Board).

Procedures for Appeal: Any person jointly or severally adversely affected by the final action may request a hearing before the Board. Any appeal must be filed by the date stated in the Department's Decision on this permit. The request for a hearing shall contain an affidavit setting forth the grounds for the request. Any hearing will be held under the provisions of the Montana Administrative Procedures Act. Submit requests for a hearing in triplicate to: Chairman, Board of Environmental Review, P.O. Box 200901, Helena, MT 59620.

For the Department,

Vickie Walsh
Air Permitting Program Supervisor
Air Resources Management Bureau
(406) 444-3490

Christine A. Weaver
Air Quality Specialist
Air Resources Management Bureau
(406) 444-5287

VW:cw
Enclosure

DEPARTMENT OF ENVIRONMENTAL QUALITY
Permitting and Compliance Division
Air Resources Management Bureau
P.O. Box 200901, Helena, MT 59620
(406) 444-3490

DRAFT ENVIRONMENTAL ASSESSMENT (EA)

Issued To: Helena Sand & Gravel, Inc.
P.O. Box 5960
Helena, MT 59604

Air Quality Permit number: #4244-00

Preliminary Determination Issued: July 31, 2008

Department Decision Issued:

Permit Final:

1. *Legal Description of Site:* MAQP #4244-00 would apply while operating at any location in Montana, except those areas having a Department-approved permitting program and areas considered tribal lands. MAQP #4244-00 and Addendum #1 would allow the portable wash plant and diesel generator to operate in or within 10 km of PM₁₀ nonattainment areas (Libby, Kalispell, Columbia Falls, Whitefish, Thompson Falls, and Butte) during the summer season (April 1-September 30) and within any area approved by the Department, in writing, during the winter season (October 1-March 31).
2. *Description of Project:* The project would consist of installing and operating a 450 TPH screen and wash plant, a diesel-fired generator (with 744 hp engine), a diesel storage tank up to 4,000-gallons, and associated equipment.
3. *Objectives of Project:* The proposed plant would create additional business and revenue for Helena Sand & Gravel and provide for varied construction activity and proposed utility infrastructure requiring sand and gravel materials, state-wide.
4. *Alternatives Considered:* In addition to the proposed action, the Department also considered the “no-action” alternative. The “no-action” alternative would deny issuance of the air quality preconstruction permit to the proposed facility. However, the Department does not consider the “no-action” alternative to be appropriate because Helena Sand & Gravel has demonstrated compliance with all applicable rules and regulations as required for permit issuance. Therefore, the “no-action” alternative was eliminated from further consideration.
5. *A Listing of Mitigation, Stipulations, and Other Controls:* A list of enforceable conditions, including a BACT analysis, would be included in MAQP #4244-00.
6. *Regulatory Effects on Private Property:* The Department considered alternatives to the conditions imposed in this permit as part of the permit development. The Department determined that the permit conditions are reasonably necessary to ensure compliance with applicable requirements and demonstrate compliance with those requirements and do not unduly restrict private property rights.

7. The following table summarizes the potential physical and biological effects of the proposed project on the human environment. The “no-action” alternative was discussed previously.

		Major	Moderate	Minor	None	Unknown	Comments Included
A	Terrestrial and Aquatic Life and Habitats			X			Yes
B	Water Quality, Quantity, and Distribution			X			Yes
C	Geology and Soil Quality, Stability and Moisture			X			Yes
D	Vegetation Cover, Quantity, and Quality			X			Yes
E	Aesthetics			X			Yes
F	Air Quality			X			Yes
G	Unique Endangered, Fragile, or Limited Environmental Resources			X			Yes
H	Demands on Environmental Resource of Water, Air and Energy			X			Yes
I	Historical and Archaeological Sites			X			Yes
J	Cumulative and Secondary Impacts			X			Yes

SUMMARY OF COMMENTS ON POTENTIAL PHYSICAL AND BIOLOGICAL EFFECTS: The following comments have been prepared by the Department.

A. Terrestrial and Aquatic Life and Habitats

Terrestrials could use the same area as the wash plant operations. The wash plant, including two settling ponds encompassing 2.7 acres, will require construction on less than 5 acres of habitat that is currently pastureland. The 5 acres will be part of the 111-acre sand & gravel pit that has been permitted for opencut mining (out of 422 acres owned by Helena Sand & Gravel at this location). This footprint is relatively small by industrial standards. Another potential impact on terrestrials is from the deposition of air emissions from the wash plant and generator. The wash plant, including the generator, will be considered a minor source of emissions, by industrial standards, with intermittent and seasonal operations. Overall, minor effects on terrestrial life and habitats would be expected.

Impacts on aquatic life and habitats could result from wash plant discharge, storm water runoff, and pollutant deposition, but such impacts would be minor. The wash plant should not have any regular discharge because it will reuse water in a closed-loop system, with settling ponds to remove suspended solids. There should be no significant impact from stormwater runoff, since there are no planned changes to drainage patterns. The minor amounts of water used in controlling dust emissions may have a minor impact on aquatic life and habitat by runoff. Lastly, the wash plant will be considered a minor source of emissions (with seasonal and intermittent operations) and, would only have minor disposition that could reach nearby water bodies. Overall, minor and temporary impacts to aquatic life and habitat would be expected from the proposed wash plant operation.

B. Water Quality, Quantity and Distribution

Water would be used in the wash plant, as well as for dust suppression on the surrounding roadways and areas of operation and for pollution control for equipment operations. According to the Opencut Mining Program EA (finalized June 4, 2008), water supplies include stormwater, on-site wells, and, upon approval of the Bureau of Reclamation, the Helena Valley Irrigation District. This water source would typically be available from

March 20 to December 9th. Use of water from the irrigation district would reduce the amount of water that would otherwise be obtained from on-site wells.

Helena Sand & Gravel estimates that of the 1,950 gallons per minute of water recirculated through the wash plant, the facility would lose 2.8 million gallons per year of water to evaporation. There is not expected to be any wastewater discharge from the wash plant. Furthermore, Helena Sand & Gravel does not propose to have any other discharges into surface water or changes to drainage patterns.

Helena Sand & Gravel is required to use water for dust suppression on the surrounding roadways and areas of operation, as well as controlling process emissions. However, water use would only cause a minor disturbance to these areas, since only relatively small amounts of water would be needed and deposition of air pollutant emissions would be minor (as described in Section 7.F of this EA).

C. Geology and Soil Quality, Stability and Moisture

The wash plant operations would have only minor impacts on soils in any proposed site location (due to the construction and use of the wash plant facility) because the facility is relatively small in size, would use only relatively small amounts of water for pollution control, and would only have seasonal and intermittent operations. There will likely be localized effects due to the two settling ponds. However, any impacts to geology and soil quality, stability, and moisture at any proposed operational site would be minor.

Overall, any impacts would be minor because the proposed wash plant operation would typically operate within areas designated for such operations.

D. Vegetation Cover, Quantity, and Quality

Because the facility would be a minor source of emissions, by industrial standards, and would typically operate in areas previously designated for aggregate crushing and screening, the impacts from the wash plant facility emissions would be minor and typical. As described in Section 7.F of this EA, the amount of air emissions from this facility would be minor. As a result, the corresponding deposition of the air pollutants on the surrounding vegetation would also be minor. Also, because the water usage is minimal, as described in Section 7.B, and the associated soil disturbance is minimal, as described in Section 7.C, corresponding vegetative impacts would be minor.

Overall, any impacts would be minor because the proposed wash plant operation would typically operate within areas designated for such operations.

E. Aesthetics

The original location for the proposed wash plant is on less than five acres of the 111 acres permitted for gravel removal operations by the Opencut Mining Program. The property is currently undeveloped pastureland, surrounded by residential areas approximately 1,000 to 1,500 feet from the property on the north, southeast, southwest, and west sides of the property. Undeveloped agricultural land abuts the south and east side of the property.

The proposed wash plant operation would be visible and would create additional noise while in operation. Since the area is flat with extended visibility in all directions, the wash plant would typically be visible from abutting properties. However, according to the Opencut Mining EA, the facility operations will be surrounded by a 1,000-ft buffer zone to minimize impact to adjacent roads and residences. In addition, a berm, planted with trees and shrubs, will be constructed along the Valley Drive side of the permit area as the site is developed.

Noise levels from the wash plant operations are expected to be less than or equal to 60 decibels at the property line (about the scale of a normal conversation at 3 to 5 feet), and lower at neighboring properties. However, MAQP #4244-00 and Addendum #1 would include conditions to control emissions, including visible emissions, from the plant. Also, because the wash plant operation is portable, and would operate on an intermittent and seasonal basis, any visual and noise impacts would be minor and short-lived.

F. Air Quality

The air quality impacts from the wash plant would be minor because MAQP #4244-00 and Addendum #1 would include conditions limiting the opacity from the plant, as well as requiring water spray bars and other means to control air pollution. Further, MAQP #4244-00 would limit total emissions from the wash plant and any additional equipment owned and operated by Helena Sand & Gravel to 250 tons/year or less at any given operating site, excluding fugitive emissions and Addendum #1 would be more stringent than the MAQP.

The wash plant would be used on a temporary and intermittent basis and typically operate within an area designated for such operations, thereby further reducing potential air quality impacts from the facility. Additionally, the small and intermittent amounts of deposition generated from the wash plant operation would be minimal because the pollutants emitted would be well controlled, widely dispersed (from such factors as wind speed and wind direction), and would result in only minor impacts to the surrounding environment. Overall, any air quality impacts resulting from the proposed wash plant operation would be minor.

G. Unique Endangered, Fragile, or Limited Environmental Resources

The Department contacted the Montana Natural Heritage Program (MNHP) in an effort to identify any species of special concern that may be found in the area where the proposed modification will occur. Search results have concluded that there are three species of concern in the area. Area, in this case, will be defined by the township and range of the proposed site, with an additional 1-mile buffer. The species of special concern are the gray wolf, the bald eagle, and the Wedge-leaved Saltbush.

Since the gray wolf is regional, it is unlikely that the installation of a gravel wash plant in a semi-developed area would have any impact on these animals. Likewise, the bald eagle should not be impacted since it is primarily a species of riparian and lacustrine habitats (forested areas along rivers and lakes), although it can have a range of several miles from its nest. Lastly, the range for Saltbush, a vascular plant, extends to approximately 1 mile west of the proposed Helena Sand & Gravel wash plant. There is no evidence that this plant will be impacted by the wash plant.

MAQP #4244-00 and Addendum #1 would cover the proposed wash plant operation while located at various locations throughout the state. Given the temporary and portable nature of the operations, any impacts would be minor and short-lived. In addition, operational conditions and limitations in MAQP #4244-00 and Addendum #1 would be protective of these resources by limiting overall impacts to the surrounding environment.

H. Demands on Environmental Resource of Water, Air and Energy

Due to the relatively small size of the facility, the wash plant operation would result in only minor demands on the environmental resources of water, air, and energy for normal operations. Relatively small quantities of water would be used for the wash plant (estimated at 2.8 million gallons per year makeup water for that evaporated from the settling ponds), dust suppression, and control of particulate emissions generated through equipment operations and vehicle traffic at the

site. Energy requirements would be accommodated through the operation of the permitted diesel-fired electric generator only when land line power is not available, and would be minor due to the relatively small amount of diesel fuel required to operate the generator.

In addition, the wash plant would operate on an intermittent and seasonal basis thereby minimizing energy demands. Further, impacts to air resources would be minor because the source would be small by industrial standards, would operate on an intermittent and seasonal basis, and would generate relatively minor amounts of regulated pollutants through normal operations.

I. Historical and Archaeological Sites

According to correspondence received from the Montana Historical Society, State Historic Preservation Office (SHPO), there is one cultural resource recorded in the area proposed for the Helena Sand & Gravel wash plant: the Helena Valley Irrigation Canal, which is located on the northern border of the property. However, according to the Opencut Mining Program EA, the canal is located 1000 feet away from the area permitted for operations. In addition, Helena Sand & Gravel is not proposing to discharge any water to the canal or change the drainage patterns, so it is unlikely this resource would be adversely impacted.

Typically, the wash plant would operate within a previously disturbed open-cut pit used for such purposes. According to past correspondence from SHPO, there would be a low likelihood of disturbance to any known archaeological or historical site given any previous industrial disturbance in any area of operation. Therefore, any impact the proposed wash plant would have on historical or archaeological sites in a given area of operation is minor.

J. Cumulative and Secondary Impacts

The wash plant operation would cause minor cumulative and secondary impacts to the proposed area of operation because the facility would generate emissions of regulated air pollutants and noise. This facility will be operated in conjunction with other equipment owned and operated by Helena Sand & Gravel as part of a sand and gravel operation that is permitted from the Opencut Mining Program. The other equipment, which will be permitted separately by the Department, may include a crusher, an asphalt plant and a concrete batch plant. However, the wash plant facility, in combination with the other emissions from equipment operations at the operational site, would not be permitted to exceed 250 tons per year of non-fugitive emissions.

8. The following table summarizes the potential economic and social effects of the proposed project on the human environment. The “no-action” alternative was discussed previously.

		Major	Moderate	Minor	None	Unknown	Comments Included
A	Social Structures and Mores			X			Yes
B	Cultural Uniqueness and Diversity				X		Yes
C	Local and State Tax Base and Tax Revenue			X			Yes
D	Agricultural or Industrial Production			X			Yes
E	Human Health			X			Yes
F	Access to and Quality of Recreational and Wilderness Activities			X			Yes
G	Quantity and Distribution of Employment				X		Yes
H	Distribution of Population				X		Yes
I	Demands for Government Services			X			Yes
J	Industrial and Commercial Activity			X			Yes
K	Locally Adopted Environmental Plans and Goals			X			Yes
L	Cumulative and Secondary Impacts			X			Yes

SUMMARY OF COMMENTS ON POTENTIAL ECONOMIC AND SOCIAL EFFECTS: The following comments have been prepared by the Department.

A. Social Structures and Mores

The wash plant operation could cause minor disruption to the social structures and mores in the area because the source would be a minor industrial source of emissions that would typically operate in a new industrial gravel pit located approximately 1,000 feet from residential areas. However, the wash plant would operate on a temporary and intermittent basis. Further, the facility would be required to operate according to the limits and conditions that would be included in MAQP #4244-00, which would limit the effects to social structures and mores.

B. Cultural Uniqueness and Diversity

The cultural uniqueness and diversity of this area would not be impacted by the proposed wash plant operation because the proposed facility would be a portable source, the facility would conduct seasonal and intermittent operations, and the facility would utilize a relatively small number of employees for normal operations. Therefore, the cultural uniqueness and diversity of the area would not be impacted.

C. Local and State Tax Base and Tax Revenue

The wash plant operations would have a minor impact on the local and state tax base and tax revenue because the facility would be a minor industrial source, would conduct only seasonal and intermittent operations, and employ 10 – 15 people (which may be transferred from the existing Canyon Ferry Drive facility). Thus, minor impacts to the local and state tax base and revenue would be expected from employees, as well as from increased facility production. Furthermore, the impacts to local tax base and revenue would be minor because the source would continue to be portable and the money generated for taxes would be widespread.

D. Agricultural or Industrial Production

The wash plant operations would result in only minor impacts to local industrial production since the facility would be a minor source of aggregate production and air emissions. Also, the facility is proposing to initially locate on land that was previously pastureland, and would often locate in areas adjacent to land that could be used for animal grazing and agricultural production. However, because minimal deposition of air pollutants would occur on the surrounding land, only minor and temporary impacts to the surrounding vegetation and land would occur. In addition, the facility operations would be temporary in nature and would be permitted with operational conditions and limitations that would minimize impacts to local agricultural areas.

E. Human Health

MAQP #4244-00 and Addendum #1 would include limits and conditions to ensure that the wash plant facility would be operated in compliance with all applicable air quality rules and standards. These rules and standards are designed to be protective of human health. As described in Section 7.F. of this EA, the air emissions from the proposed facility would be minimized by the use of water spray and other process limits that would be required by MAQP #4244-00 and Addendum #1. Also, the facility would operate on a temporary and intermittent basis and pollutants would be widely dispersed (see Section 7.F of this EA). Therefore, only minor impacts would be expected on human health from the proposed wash plant operations.

F. Access to and Quality of Recreational and Wilderness Activities

There is no recreational or wilderness area directly surrounding the site. The facility is located ½ mile south of Canyon Ferry Road, which leads from Helena to Canyon Ferry Reservoir, and therefore the wash plant should have only minimal impact from the road.

Noise levels from the wash plant operations are expected to be less than or equal to 60 decibels at the property line (about the scale of a normal conversation at 3 to 5 feet), and lower at neighboring properties. Noise from the wash plant should not impact recreational and wilderness areas (the Helena Valley Regulating Reservoir is a little less than two miles from the site, and the Hauser Lake area is located over five miles from the site.) Also, the facility would operate on a seasonal and intermittent basis. Therefore, any impacts to the quality of recreational and wilderness activities created by the proposed project would be expected to be minor and short-lived.

G. Quantity and Distribution of Employment

The wash plant operation would require 10 - 15 employees (which may be transferred from the existing Canyon Ferry Drive facility). It can be assumed that this is not enough to not cause immigration into or emigration out of a given area of operation and therefore, the proposed project would not impact the quantity and distribution of employment.

H. Distribution of Population

The proposed project is not anticipated to cause any immigration into or emigration out of a given area. Therefore, the proposed project would not impact the distribution of population.

I. Demands for Government Services

Only minor increases would be seen in traffic on existing roadways in the area while the wash plant operation is in progress. In addition, government services would be required for acquiring the appropriate permits for the proposed project and to verify compliance with the permits that would be issued. Overall, demands for government services would be minor.

J. Industrial and Commercial Activity

The proposed project would represent only a minor increase in the industrial activity in the proposed area of operation because the source would be a relatively small industrial source that would be portable and temporary in nature. No additional industrial or commercial activity would be expected as a result of the proposed operation.

K. Locally Adopted Environmental Plans and Goals

MAQP #4244-00 and Addendum #1 would allow Helena Sand & Gravel to operate in areas designated by EPA as attainment or unclassified for the National and Montana Ambient Air Quality Standards (NAAQS/MAAQS). MAQP #4244-00 and Addendum #1 would include limits and conditions that would protect air quality and keep facility emissions in compliance with any applicable ambient air quality standards. In addition to the air quality protection provided by MAQP #4244-00 and Addendum #1, the facility would be a portable source and would have intermittent and seasonal operations, thus, any impacts from the facility would be minor and short-lived.

L. Cumulative and Secondary Impacts

The wash plant operations would cause minor cumulative and secondary impacts to the social and economic aspects of the human environment in the immediate area of operation because the source would be a portable and temporary source.

This facility will be operated in conjunction with other equipment owned and operated by Helena Sand & Gravel as part of a sand & gravel operation that is permitted from the Opencut Mining Program. However, any cumulative impacts to the social and economic aspects of the human environment would be minor and short-lived.

The Opencut Mining EA projects 20,000 off-site deliveries (40,000 one-way trips) will be made annually from the Helena Sand & Gravel site. The proposed wash plant will be part of the production process but not create additional traffic. Only minor economic impacts to the local economy would be expected from the proposed project. Overall, the proposed project would result in only minor and temporary secondary and cumulative impacts to the social and economic aspects of the human environment of the operating site.

Recommendation: No Environmental Impact Statement (EIS) is required.

If an EIS is not required, explain why the EA is an appropriate level of analysis: The current permitting action is for the construction and operation of a portable wash plant facility. MAQP #4244-00 and Addendum #1 include conditions and limitations to ensure the facility will operate in compliance with all applicable rules and regulations. In addition, there are no significant impacts associated with this proposal.

Other groups or agencies contacted or which may have overlapping jurisdiction: Montana Historical Society – State Historic Preservation Office, Natural Resource Information System – Montana Natural Heritage Program, Department of Environmental Quality – Opencut Mining Program

Individuals or groups contributing to this EA: Department of Environmental Quality – Air Resources Management Bureau, Montana Historical Society – State Historic Preservation Office, Natural Resource Information System – Montana Natural Heritage Program, Department of Environmental Quality – Opencut Mining Program

EA prepared by: Christine Weaver

Date: July 23, 2008